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Authors

Sharif, Mienah Z
Rizzo, Shemra
Marino, Enrique
et al.

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The association between self-rated eating habits and dietary behavior in two Latino neighborhoods: Findings from Proyecto MercadoFRESCO

Mienah Z. Sharif [a,b,*], Shemra Rizzo [a,c], Enrique Marino [a,d], Thomas R. Belin [a,d], Deborah C. Glik [a,b], Alice A. Kuo [a,e,f], Alexander N. Ortega [a,g], Michael L. Prelip [a,b]

[a] UCLA Center for Population Health and Health Disparities (CPHHD), United States
[b] UCLA Fielding School of Public Health, Department of Community Health Sciences, United States
[c] UC Riverside, Department of Statistics, United States
[d] UCLA Fielding School of Public Health, Department of Biostatistics, United States
[e] UCLA Fielding School of Public Health, Department of Health Policy and Management, United States
[f] David Geffen School of Medicine at UCLA, Departments of Pediatrics and Internal Medicine, United States
[g] Drexel University, Dornsife School of Public Health, Department of Health Management & Policy, United States

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ABSTRACT

Objective. Latinos are the largest racial and ethnic minority group in the United States and bear a disproportionate burden of obesity related chronic disease. Despite national efforts to improve dietary habits and prevent obesity among Latinos, obesity rates remain high. The objective of this study is to explore the relationship between self-rated dietary quality and dietary behavior among Latinos and how this may vary by sociodemographics to help inform future public health efforts aiming to improve eating habits and obesity rates.

Design. Cross-sectional study using a series of chi-square tests, the non-parametric Wilcoxon–Mann–Whitney test and logistic regression to explore self-rated eating habits.

Setting. Two urban, low-income, predominantly Latino neighborhoods in Los Angeles County.

Subjects. 1000 adults who self-identified as their household's primary food purchaser and preparer were interviewed from 2012 to 2013. Households were randomly selected based on their proximity to corner stores participating in a project to improve the food environment.

Results. Most respondents (59%) report "good" eating habits. Significant associations between "good" eating habits and overall health, fruit and vegetable consumption were observed ($p < 0.001$). Despite these promising findings, we also find high levels of regular soda and energy-dense food consumption.

Conclusion. This study revealed a general understanding that healthy dietary habits are associated with fruit and vegetable consumption among Latinos in two urban neighborhoods. However, there is a need for more targeted health promotion and nutrition education efforts on the risks associated with soda and energy-dense food consumption to help improve dietary habits and obesity levels in low-income Latino communities.

1. Introduction

The obesity epidemic is a major public health concern across all age ranges (Gortmaker et al., 2011). It is associated with a lower quality of life (Fontaine and Barofsky, 2001) and is a risk factor for chronic conditions including diabetes, hypertension, stroke, heart disease, and certain cancers (Flegal et al., 2007; Malnick and Knobler, 2006). Obesity rates are expected to continue to increase in the United States and exceed 50% in 39 states thus driving obesity related healthcare costs to increase to $66 billion by 2030 (Voelker, 2012). Obesity among Latinos in particular is a major focus of both public health research and practice given that they are the largest minority group in the United States (U.S.) and experience a disproportionate burden of obesity-related chronic conditions, including cardiovascular disease and type II diabetes (Pérez-Escamilla, 2010; Roger et al., 2012). In 2010, nationally representative data revealed higher rates of obesity among Latino adults than their non-Hispanic White counterparts, 39.1% vs. 34.3% respectively (Flegal et al., 2012).

Nationwide, public health efforts have emphasized improving dietary habits as a critical strategy for decreasing obesity trends (Perez et al., 2013; NPR et al., 2014). However, findings have yielded mixed results (Perez et al., 2013). Moreover, despite the fact that Latinos, both children and adults, have an elevated risk of obesity, a 2014 poll

* Corresponding author at: UCLA Center for Population Health and Health Disparities, Fielding School of Public Health, 650 Charles E. Young Drive South, 26-081 CHS, Los Angeles, CA 90095, United States.
E-mail address: mienah@gmail.com (M.Z. Sharif).

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reported that almost 40% of Latino immigrants perceived their diets to be "healthy" (NPR et al., 2014). A potential explanation for the disconnect between this finding and obesity trends among Latinos is a misperception of the healthfulness of one's actual dietary habits. As Powell and colleagues explain (Powell-Wiley et al., 2014), perceived diet quality is a psychosocial factor that may be perpetuating unhealthy dietary practices as people may perceive their eating habits to be of higher quality than what is outlined by dietary guidelines or recommendations. Thus, it is important for public health efforts to further explore the topic of perceived dietary quality considering research suggesting that a large proportion, almost 40% of household meal planners and preparers in the U.S., rate their dietary quality to be higher than what is measured by objective measures (Powell-Wiley et al., 2014). Yet, there is a dearth of research focusing on the relationship between perceived dietary quality and actual dietary intake among Latinos, leaving a missed opportunity in obesity prevention efforts by not focusing more on the relationship between perceived healthfulness of dietary habits and reported dietary intake as well as how this relationship can, in turn, facilitate behavior change.

Dietary behavior is complex and is influenced by a myriad of factors including cost, accessibility to certain foods and perceived convenience. Improving the food retail environment is an increasingly popular public health strategy for facilitating healthy dietary habits, particularly in low-income, racial and ethnic minority communities that have limited access to healthful food including fresh fruit and vegetables (Cummins et al., 2014; Escaron et al., 2013; Dannefer et al., 2012; Martin et al., 2012; Ortega et al., 2015). However, preliminary studies on these efforts to improve the food environment suggest that increasing access alone does not result in the desired changes in dietary behavior (Cummins et al., 2014; Escaron et al., 2013; Dannefer et al., 2012; Martin et al., 2012). Rather, research suggests that psychosocial factors, such as perceived benefits, perceived risk, and attitudes also influence dietary behavior (Satia, 2009) but are often overlooked in public health interventions. In other words, despite an increase in accessible healthy food, people are less likely to improve eating habits when there is a lack of awareness of the benefits of healthy dietary behavior, and/or lack of change perceived risk, or unawareness that their dietary intake is unhealthy (Glanz et al., 1997) or a risk factor to their health (Kristal et al., 2001). This idea was reinforced by a study focusing on predictors of self-initiated dietary change that identified motivation as an important determinant in improving eating habits (Kristal et al., 2001). Thus, there is a need for more studies on perception of dietary quality, particularly among populations at-risk for obesity-related chronic conditions.

The purpose of this paper is to add to the body of literature on dietary habits among Latinos by being one of the first, to the authors' knowledge, to explore the relationship between self-rated eating habits, an indicator of perceived dietary quality, and reported dietary behavior among Latinos, and how this may vary by socio-demographics. This study was based in East Los Angeles (East LA) and Boyle Heights, two predominantly Latino communities in which 97% of the residents identify as Latino/Hispanic and almost half of the community residents report being born outside the U.S. (43%) (United States Census Bureau, 2013). Moreover, both communities are characterized as socioeconomically disadvantaged considering residents have disproportionately lower levels of household income as well as lower levels of education in comparison to Los Angeles County as a whole (Los Angeles Times, 2010a, 2010b). The results from this study can help develop and disseminate more effective targeted health promotion efforts to improve dietary habits and potentially reduce current levels of chronic disease, including obesity, in Latino communities.

2. Methods

Data for this study are from a project of "the UCLA Center for Population Health and Health Disparities (CPHDD)," a National Heart, Lung and Blood Institute-funded research center focused on reducing cardiovascular disease risk among Latinos in East LA and Boyle Heights through a multi-level, community-engaged health intervention. A major component of one project within the center is to improve the food environment by converting small locally owned corner stores into healthy food outlets by increasing access to affordable, high quality fresh produce (Ortega et al., 2015). In brief, the corner store conversions entailed installing refrigeration units at the front of stores that displayed fresh fruits and vegetables whereas the "wall of chips" and sugar sweetened beverages were moved to the back of the stores. In addition, advertisements for energy dense snacks, sugar-sweetened beverages and alcohol were removed from the stores and replaced with messages on healthy eating. Data for this current study are from the East Los Angeles Community Survey (described in more detail in Ortega et al., 2015), a survey administered to evaluate changes among residents surrounding cornerstores involved in the larger project.

Participants were selected based on a three-stage sampling plan. First, four block clusters were purposively selected from all blocks in East LA based on their proximity to corner stores involved in the larger study. Second, 125 households within the given block clusters, for a total of 1000 households, were randomly selected. However, anticipating refusals and non-eligibility, substitute households, additional households in the main sampling frame but not within the initial sample of 1000 households identified, were also randomly selected to participate. Finally, a single individual was sampled within the given household, following a request to speak with an adult that identified as the primary food purchaser and preparer for the household. The study purpose and procedures were explained to all potential participants and a $25 VISA gift card was offered as incentive. All participants provided verbal and written consent after agreeing to participate. Data were collected using interviewer-administered computer-assisted interviews conducted in either English or Spanish in each participant's home between July and September 2013. Interviews lasted, on average, 1 hour.

3. Instrument

The survey instrument was developed by the research team by adapting existing instruments that measured nutrition knowledge and dietary behavior including the Behavioral Risk Factor Surveillance System Survey (BRFS) Questionnaire (Centers for Disease Control and Prevention (CDC), 2010a), the National Health and Nutrition Examination Survey (NHANES) Questionnaire (Centers for Disease Control and Prevention (CDC), 2010b), the Los Angeles County Health Survey (Los Angeles County Department of Public Health, 2007) and California Health Interview Survey (CHIS) (UCLA Center for Health Policy Research, 2009). Domains focusing on corner stores and the community food environment were included after conducting literature review on similar studies on improving the food environment in low-income urban neighborhoods. Additional items, developed by the research team, were guided by results from 10 semi-structured focus groups with approximately 90 residents of East Los Angeles and Boyle Heights that took place in September and October of 2010. Participants of the focus groups were predominantly female (88%), foreign-born (80%) and all 90 identified as Latino. These focus groups focused on community residents' nutrition knowledge, perceptions of their food environment, food purchasing and food preparation patterns, and their dietary habits. Focus groups lasted between 1.5–2 h each and participants each received a $25 gift card and a light meal.

The survey instrument was developed in both English and Spanish and consists of 21 modules that cover a broad spectrum of topics including: participants' food purchasing, preparation, and consumption behaviors as well as a range of other characteristics related to nutrition, health, and demographics. Staff members of the UCLA CPHHD pretested the entire survey in both English and Spanish with 10 East LA residents recruited by community-based organizations. The purpose of the

pre-testing was to test the actual survey content, determine the timing for each module of the instrument, and assess the general reaction and perceptions of respondents to the survey itself and the data collection materials. Participants in the pre-testing were provided with $25 cash incentives. Participants were asked to provide feedback on specific items as well as the survey overall. As a result of pre-testing, the instrument was revised by either deleting items and/or re-wording questions to provide more clarity, or specificity. The revised instrument was then pre-tested again, with additional community residents, to assess the clarity of the revised items and average duration of time it took to complete the interview.

Eligibility criteria were the following: living in a household within the block clusters identified, being age 18 or over, speaking English or Spanish, and identifying as the main food purchaser and preparer for the household. There was an 82% response rate for this study resulting in a total of 1029 surveys completed. However, only those respondents who identified as Latinos were included in this current study ($n = 1000$). Demographic characteristics of those who were ineligible and/or refused to participate were not collected.

4. Measures

4.1. Dependent variables

The dependent variable was self-rated healthy eating habits. Participants rated their eating habits on a scale of 1 to 10 by responding to the following question, "On a scale from 1 to 10, where 1 is poor, 4 is fair, 7 is good, and 10 is excellent, how would you rate your eating habits?" Scores were dichotomized into "good eating habits" for scores of 7 to 10 and "poor eating habits" for scores of 6 or less.

4.2. Independent variables

Socio-demographic variables include gender (female or male), age, educational achievement (less than high school, high school graduate, or more than high school), and place of birth (answers were dichotomized into U.S.-born or foreign-born "Mexico or Other").

Participants were asked how often they eat fruit and vegetables as snacks, fast food, Mexican sweet bread ("Pan Dulce"), regular potato/tortilla chips, pretzels or crackers (as opposed to baked options), ice cream, and drink regular soda. Response options were "never", "rarely", "often" and "everyday," and were dichotomized into "yes" ("often" and "everyday") and "no" ("rarely" and "never").

Participants were also asked how many servings of fruit and vegetables they consumed daily as two separate questions: 1) "How many servings of fruit do you eat each day?" and 2) "How many servings of vegetables do you eat each day?" Respondents were provided with the following examples of serving sizes, "One serving could be, for example, an apple or an ear of corn." The answers were pooled into one continuous variable defined as number of servings of fruits and vegetables consumed daily. Furthermore, we inquired whether respondents had been diagnosed with any of the following conditions: diabetes, heart disease, heart failure, high blood pressure, high cholesterol and cancer. Possible answers were "yes" or "no". Finally, participants were asked to rate their health by responding to the following question, "Would you say in general your health is excellent, very good, good, fair or poor?;" responses were dichotomized into "good to excellent" and "poor to fair" health.

4.3. Statistical methods

STATA, version 14 (StataCorp, College Station, TX) was used for all statistical analyses. Chi-square tests were used to evaluate associations between self-rated eating habits and multiple healthy and unhealthy dietary behaviors, such as the consumption of fruit and vegetables as snacks, soda, fast food, regular potato/tortilla chips, pretzels or crackers ("regular snack foods"), sweet bread and ice cream. The associations between self-rated eating habits and each of the six chronic diseases were also assessed using the Chi-square test. The non-parametric Wilcoxon–Mann–Whitney test was used to compare the fruits and vegetables daily intake distribution between those with "good" self-rated eating habits and those with "poor" habits. Logistic regression was used to assess the effect of fruit and vegetables daily intake on self-reported eating habits, adjusting for demographic variables. Results with a p-value less than 0.05 were considered statistically significant. Variance Inflation Factors (VIFs) were used to assess multicollinearity among variables as a VIF greater than 5 indicates problematic correlation.

5. Results

Demographic characteristics by status of self-rated healthy eating habits can be found in Table 1. Most participants were female (79%) and had less than high school education (50%). A large proportion of the respondents were foreign born ("Mexico or Other") (66%) and of the foreign-born participants, the majority were born in Mexico (87%). There was a wide range of ages among participants, from 18 to 96, with the average age being 45 years of age. Among all participants, 59% rated their eating habits as "good" and 41% as "poor".

In our sample, we found that the average consumption of fruit and vegetables among all participants was 4.4 ± 2.1 servings (Table 1). The daily consumption of fruits and vegetables was higher among those who considered their eating habits to be "good" than those who considered their eating habits as "poor" (Mann–Whitney–Wilcoxon test, z-score $= -6.54$, $p > 0.001$). The average consumption was 4.7 ± 2.2 servings in the "good" eating habits group and 4.0 ± 2.0 servings in the "poor" eating habits group.

Table 2 displays the consumption of soda, fast-food and energy-dense foods such as ice-cream, Mexican sweet bread, fruits and vegetables as a snack, and non-baked potato chips pretzels and crackers. Of all participants, 59% reported consuming fruits and vegetables as a snack often or always. On the other hand, 17% of participants

Table 1
Self rated eating habits by demographic characteristics and fruit and vegetable servings intake among Latinos in East Los Angeles and Boyle Heights, 2012–2013 (n = 1000).

	Self-rated eating habits			
	Good	Poor	Total	p-Value
	n (%)	n (%)	n	
No. of respondents	591 (59)	409 (41)	1000	
Gender				0.115
Male	117 (54)	98 (46)	215	
Female	474 (60)	311 (40)	785	
Education				0.308
<High School	299 (60)	198 (40)	497	
High School	165 (61)	104 (40)	269	
>High School	122 (55)	100 (45)	222	
Country of origin				<0.001
U.S.	159 (48)	173 (52)	332	
Mexico or Other[a]	426 (65)	232 (35)	658	
Age (years)				0.070
18–34	154 (54)	133 (46)	287	
35–49	202 (62)	123 (38)	325	
50+ years	212 (59)	146 (41)	358	
	mean (sd)	mean (sd)	mean (sd)	
Age				0.249
in years	45.8 (16.0)	44.8 (16.6)	45.4 (16.3)	
Fruit and vegetable intake				<0.001
number of servings	4.7 (2.2)	4.0 (2.0)	4.4 (2.1)	

Note: Categorical data are presented as counts and percentages, and continuous data are presented as mean and standard deviations. Percentages may not add up to 100% due to rounding.

[a] Eighty-seven percent of the foreign born respondents reported Mexico as their place of birth.

Table 2
Self-rated eating habits by self-reported eating behaviors and self-reported health among Latinos in East Los Angeles and Boyle Heights, 2012–2013 (N = 1000).

	Self-rated eating habits			
	Good	Poor	Total	P-value
	n (%)	n (%)	n (%)	
Eating behaviors				
FV as snacks[a]				<0.001
Often or always	393 (67.0)	194 (33.1)	587 (58.7)	
Rarely or never	198 (47.9)	215 (52.1)	413 (41.3)	
Regular soda				<0.001
Often or always	69 (41.8)	96 (58.2)	165 (16.5)	
Rarely or never	522 (62.5)	313 (37.5)	835 (83.5)	
Fast food				<0.001
Often or always	61 (40.1)	91 (59.9)	152 (15.2)	
Rarely or never	530 (62.5)	318 (37.5)	848 (84.8)	
Mexican sweet bread (Pan Dulce)				0.467
Often or always	130 (57.0)	98 (43.0)	228 (22.8)	
Rarely or never	461 (59.7)	311 (40.3)	772 (77.2)	
Ice cream				0.976
Often or always	90 (59.2)	62 (40.8)	152 (15.2)	
Rarely or never	501 (59.1)	347 (40.9)	848 (84.8)	
Regular potato chips, pretzels or crackers				0.153
Often or always	62 (53.0)	55 (47.0)	117 (11.7)	
Rarely or never	529 (59.9)	354 (40.1)	883 (88.3)	
Self-reported health				
Self-reported health				<0.001
Good	350 (67.2)	171 (32.8)	521 (52.5)	
Poor	238 (50.4)	234 (49.6)	472 (47.5)	

Notes: Data are presented as counts and percentages. Percentages may not add up to 100% due to rounding.
[a] FV = Fruits and vegetables.

Table 3
Logistic regression for "good" self-reported eating habits and fruit and vegetables intake adjusted for demographics among Latinos in East Los Angeles and Boyle Heights, 2012–2013 (N = 1000).

	Among all participants (N = 1000)		
	OR	95% CI	p-Value
Fruit and vegetables (servings)	1.20	(1.11, 1.29)	<0.001
Age (years)			
18–34	—	—	
35–49	1.24	(0.87, 1.75)	0.233
50+	1.20	(0.84, 1.72)	0.303
Gender			
Male	0.91	(0.65, 1.27)	0.566
Female	—	—	
Education			
Less Than High School	0.86	(0.59, 1.27)	0.456
High School	1.27	(0.87, 1.86)	0.222
More than High School	—	—	
Country of origin			
U.S.	0.53	(0.38, 0.73)	<0.001
Mexico or other[a]	—	—	

Note: The categorical variable of education was introduced in the model as two indicator variables.
[a] Eighty-seven percent of the foreign born respondents reported Mexico as their place of birth.

reported drinking soda, 15% ate fast food, 23% ate Mexican sweet bread, 15% ate ice cream, and 12% ate non-baked chips, pretzels and crackers, often or always. Those who reported "good" eating habits were 2.2 times more likely to report eating fruits and vegetables as snacks often or always than those who reported "poor" eating habits ($p < 0.001$). On the other hand, drinking soda ($p < 0.001$) and eating fast food often or always ($p < 0.001$) were significantly associated with "poor" self-reported eating habits. Interestingly, however, there was no statistically significant association between self-reported "good" or "poor" eating habits and consumption of energy-dense foods including sweet bread, ice cream and chips. These findings are consistent with the results when the outcome was analyzed using the original four response categories "never/rarely/often/everyday" (not shown). As expected, "good" self-reported health was significantly associated with self-reported "good" eating habits ($p < 0.001$). Results from Chi-square tests showed that there was no association between self-reported "good" or "poor" eating habits and each of the chronic diseases (diabetes, heart failure, heart disease, high blood pressure, high cholesterol and cancer) (not shown).

The results of a logistic regression that models "good" self-rated eating habits by fruits and vegetables intake controlled for demographic characteristics can be found in Table 3. Higher consumption of fruit and vegetables was significantly associated with "good" self-rated eating habits (p-value < 0.001), after adjusting for age, gender, education, and country of birth. For each additional serving of fruits or vegetables, there were 20% higher odds of reporting "good" eating habits. For Latinos, being born in the U.S. was negatively associated with reporting "good" eating habits. Specifically, Latinos who were born in the U.S. were half as likely to report "good" eating habits than foreign-born respondents ($p < 0.001$). However, we found that place of birth was associated with level of education ($p < 0.001$). Moreover, while assessing the presence of multicollinearity in the model, we found that respondents with higher levels of education were more likely to be born in the U.S. However, VIFs were less than 1.5 for all variables indicating that multicollinearity in the model was not a concern. Furthermore, sensitivity analysis showed that the results of the model are invariant to the presence or absence of the education variable. Therefore, we kept both country of birth and level of education in the model. Additional analyses also revealed that there were no significant differences in self-reported "good" eating habits between U.S.- and Foreign-born respondents by age group and/or by level of education (not shown).

6. Discussion

The purpose of this study was to explore the largely understudied topic of self-rated eating habits in two socioeconomically disadvantaged Latino communities (Los Angeles Times, 2010a, 2010b). There is a need for more research on this topic as perceptions of the healthfulness of diets are recognized as more influential in motivating one to change behavior than one's report of actual food intake (Glanz et al., 1994, 1997). Thus, raising awareness of one's diet quality can facilitate positive changes in dietary behavior by understanding how people interpret and apply nutrition education messages (Paquette, 2005). The findings present telling implications for future nutrition interventions and education efforts among Latinos aiming to reduce obesity-related chronic diseases.

Within this sample, more respondents rated their eating habits as "good" as opposed to "poor." Consumption of fruit and vegetables was substantially higher among the group who rated their eating behavior as "good" than the group that rated theirs to be "poor." This finding coincides with existing literature on perceptions of healthy diets that found fruit and vegetables as the most commonly cited components of a healthy diet (Paquette, 2005; Yeh et al., 2008). The results also suggest that there is a general level of awareness that consuming fruit and vegetables as snacks often or every day constitute "good" eating behavior. These findings may partially reflect the effectiveness of nutrition education efforts emphasizing fruit and vegetable consumption as part of a "healthy diet." Among all respondents, "good" self-reported eating habits did not vary by gender, age or level of education.

There was also a significant positive association between self-rated eating habits and self-rated health suggesting an understanding that dietary habits influence overall perceived health. This finding is consistent with a previous study among Latinos that found higher levels of fruit and vegetable consumption among those who reported to be in good health (Kepka et al., 2007). This association has health implications considering that perceived association between a healthy diet and overall

health can predict healthy dietary behavior (Glanz et al., 1997; Kristal et al., 1995). However, of public health concern is that even among those who report their diet as healthy, consumption of fruit and vegetables fell short of national dietary recommendations.

Contrary to prior studies positing a higher level of awareness and intention of maintaining healthy eating practices among those with chronic conditions (Rafferty et al., 2002), there were no significant relationships between self-reported eating habits and the diagnosis of diabetes, heart failure, heart disease, high cholesterol, cancer or high blood pressure. These findings suggest that people in our sample who were diagnosed with any of these conditions did not rate their eating habits differently than people without a diagnosis. This finding is of concern given the potential a healthy diet can have on prevention and management of chronic conditions.

The responses on self-rated eating habits and consumption of energy-dense foods and sodas yielded mixed results. There was a significant association identified between soda and fast food consumption with "poor" self-reported eating habits. Nonetheless, the findings on self-reported intake of energy-dense foods were troubling. The rate of reported daily intake of energy-dense foods including ice cream, Mexican sweet bread, regular snack foods (potato/tortilla chips, pretzels or crackers) was high among all participants and did not vary significantly between both those who rated their eating habits as "good" and "poor." While a significant negative association was found between soda consumption and self-rated "good" eating habits, it is still alarming that soda consumption is high overall. Specifically, 17% of the sample reported drinking soda often or always. These findings are substantiated by prior research describing consumption of high levels of added sugar and refined grains among Latinos as contributors to their disproportionate rates of obesity and obesity related conditions (NPR et al., 2014).

There are limitations to this study worth mentioning. First, responses are based on self-reported data that are subject to both recall bias and social desirability. Moreover, results could also be biased due to a respondent's limited/lack of understanding of the response options provided for eating behaviors including making the distinction between "rarely" and "often." These biases could help explain why findings differed from previous studies. Second, causality cannot be derived from the findings given the cross-sectional design of the study. Third, the findings cannot be generalized to Latino populations outside of the study sample as the findings are based on data collected from the household primary food purchasers and preparers in East Los Angeles and Boyle Heights. Another limitation related to generalizability is the lack of demographic information on individuals who were either ineligible or chose not to participate which impedes our ability to assess how they differ from the current sample. Furthermore, although 87% of the foreign-born respondents were born in Mexico, the heterogeneous mix of other places of birth yielded sample sizes too small to analyze separately. Therefore, the analyses by place of birth are limited to only two categories: U.S.- and Mexico-Other. We hope that this study motivates future research among immigrants to help us understand whether, and how, these relationships differ by country of birth.

7. Conclusion

Despite the awareness that healthy diets are associated with general health status, perceived benefits of fruit and vegetables and perceived unhealthy attributes of consuming soda and fast food, Latinos in East LA consume soda and energy-dense foods on a regular basis. The findings provide important suggestions for future research and practice that can help improve dietary behavior and potentially decrease levels of obesity among Latinos. In particular, this study demonstrates that there is a need for targeted interventions that focus on the adverse health consequences of consuming energy-dense foods and sodas given the strong preference for and regular consumption of them. Also, this stresses the importance of conveying information about dietary information to correct self-perception. For example, although participants who consumed higher amounts of fruit and vegetables rated their diet as "good," they also exhibited some unhealthy behaviors such as frequent consumption of sugar-sweetened beverages. This could help influence levels of motivation and intent to improve dietary habits and decrease consumption of less healthful food items. Future research focusing on the psychosocial factors influencing dietary behavior in Latino communities can help inform public health interventions on how to more effectively design interventions to facilitate behavior change and reduce the rates of obesity-related chronic diseases.

Conflict of interest

The authors declare that there are no conflicts of interest.

Transparency document

The transparency document associated with this article can be found, in online version.

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